*Panel Session Interpretive Transcript**

Enhancing the Connection between IRWM and SGMA

California Water Plan Update 2018
Second Plenary Meeting
September 27, 2017
McClellan Conference Center, Sacramento

Description: Panelists explored varying experiences and thoughts about the relationship between integrated regional water management (IRWM) and implementation of the Sustainable Groundwater Management Act (SGMA).

Moderator: David Orth; Member, California Water Commission and Principal, New Current Water and Land, LLC

Panelists:

Lance Eckhart; Director, Basin Management and Resource Planning, Mojave Water Agency
Courtney Howard; Division Manager, Water Resources, San Luis Obispo County
John Ricker; Water Resources Program Coordinator, Santa Cruz County
Eric Osterling; Manager, Water Resources, Kings River Conservation District
John Woodling; Executive Director, Regional Water Authority

David Orth - Opening Remarks

I [David] have extensive experience in creating and managing a successful IRWM plan in the King's River Basin. On behalf of the Association of California Water Agencies, I participated in the negotiation process with legislators and state policy staff to draft SGMA.

Background points:

> Integrated [regional] water management became part of the California legislative process through SB 1672 in 2002 (the IRWM Planning Act). Since then, we've seen a significant level of effort to integrate water management in many areas of the state.

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* *This "interpretive transcript" of the subject panel session is not a verbatim record. Changes were made between the panel session recording and this written record for the sake of readability and understanding. Careful consideration was given to preserving the original content and meaning of each speaker's contribution. The panel session recording is available at:* https://www.youtube.com/watch?v=a-38kp5bsEs

Mark Cowan, former director of the California Department of Water Resources, repeatedly stated that integrated planning is the foundation/framework of California water policy.

The 2014 Sustainable Groundwater Management Act set up some requirements for the management of groundwater in prioritized groundwater basins.

Under SGMA, about 80 percent of California's groundwater use is subject to a sustainable use objective by 2040, or 2042, depending on whether a groundwater basin is critically overdrafted or not.

Both the IRWM Planning Act and SGMA were founded on a fundamental state policy that the management of water is best accomplished at the local or regional level.

SGMA makes some connections with planning, but more with general land-use planning processes. It directs groundwater sustainability agencies to present their plans to land use agencies, and vice-versa. This provides some level of coordination and consistency between groundwater and land use, but it's a pretty soft connection.

SGMA is pretty quiet about IRWM and it is up to others to decide if that was an oversight, a missed opportunity, or if it was intentional.

It was very important to the drafters of SGMA to allow local groundwater management agencies to form around whatever level of governance and governance structure that would allow them to achieve sustainable groundwater management.

As the general manager of the Kings River Conservation District participating in SGMA discussions, I thought all the way through that the Kings Basin Water Authority was going to be the groundwater sustainability agency (GSA) for the Kings Basin. We spent ten plus years building IRWM and I thought SGMA implementation will just naturally morph into IRWM. It turned out to be that just the opposite happened. GSA formation in the Kings Basin went back to kind of standard, business-as-usual water agencies going back and trying to figure out how they can manage their resources. I suggest that this occurred because we had two different drivers and two different starting points between IRWM and SGMA implementation. Integrated [regional] water management is all about a

vision, and in the Kings River Basin it was all about prioritizing project needs and collectively pursuing funds. On the other hand, SGMA implementation is all about allocating and using a limited restricted resource in a way that creates competition within a groundwater basin/subbasin. It is those differences between IRWM and SGMA that create some challenges.

Mike Floyd (DWR) - Set Up Presentation**

The report titled *Stakeholder Perspectives – Recommendations for Sustaining and Strengthening Integrated Regional Water Management* was developed over a three-year period and is based on broad stakeholder engagement across the state. Stakeholder input included thoughts and recommendations related to groundwater.

The stakeholder perspectives document identifies four key strategies for sustaining and strengthening IRWM:

- *Improve alignment*
- *Strengthen practices*
- *Improve services*
- *Communicate values*

A total of about 70 actions are listed under these strategies. Recommendations relating to groundwater can be found in various parts of the document.

The Sustainable Groundwater Management Act was passed in 2014 while the stakeholder perspectives document development process was underway. SGMA was passed in response to the conclusion that groundwater was not being managed as well as it should have been in certain areas of the state.

Stakeholders stated that groundwater is a very important part of IRWM, but now that SGMA is here, IRWM provides an opportunity for SGMA implementation. Integrated regional water management principles and practices have all kinds of different benefits, bring a lot of people to the table, and offer many solutions.

** *Note: The slides used for this presentation can be viewed at:* http://www.water.ca.gov/waterplan/docs/cwpu2018/plenary/sep2017/presentations/03_Update2018_Plenary_Sept2017_IRWM_SGMA_Session.pdf

The regional sustainability summit [sponsored by DWR and the Water Education Foundation] in April of this year [2017] brought people together across California to talk about building capacity for regional sustainability. Some key points as background for this panel discussion are that the summit discussions affirmed the importance of SGMA, reinforced the broader role of IRWM, and identified the need to enhance the connection between IRWM and SGMA.

David Orth – Guidance for the Panelists

This panel discussion is about how to enhance the connection between two similar, overlapping, and different starting point programs [IRWM and SGMA].

DWR is asking the panel to address:

> How does IRWM contribute--what are the values that IRWM brings to groundwater management?
>
> What insights and experiences do you have about how SGMA affected integrated planning (or not) in your IRWM regions?
>
> What are your thoughts and opinions as to opportunities and challenges for enhancing the connection between SGMA and IRWM, and how can DWR be helpful in that?

Lance Eckhart

I am speaking as a project manager for a local integrated plan that also sits primarily in an adjudicated Basin.

The groundwater basin adjudication that's in my area started about 20 years ago.

The situation in my area in a way represents a fast-forward of SGMA, which is like the adjudication of groundwater basins. So, I'm speaking about how integrated planning has affected this particular adjudication over the last two decades. I'm basically summarizing the last 20 years in the next five minutes. Hopefully you'll glean a few lessons learned, at least from my area.

What you're going to learn with SGMA is you're going to have to start measuring your basin and reporting it out on an annual basis. You are going to learn that you're probably not managing your basin as well as you would hope. You may even discover that you are mismanaging parts of your basin.

As you put your water budgets together, you are going to realize that a lot of your resource managers are siloed around your region. Managers will see items on the water balance portfolio that they really never thought of like:

> *Where does the shower water go?* If you are a groundwater person, perhaps you don't care.
>
> *Where does our water come from?* If you are a wastewater person you might not care.
>
> *Does any water come in from the neighboring basin?* You might not really be sure about that.
>
> *What happens with all the septic tanks in non-sewered areas?* You might not know.
>
> *Is agriculture so efficient that there's no return flow, or is there return flow from crops?* You might not be sure.
>
> You realize that you're in a small basin and it is a closed system*. Are there environmental demands?* You're not sure about that.

You're going to see a lot of things on your water ledger that are all water but you are only familiar with a few of those things. Once you realize that you are actually trying to manage a system (and not just one facet of a resource) you'll realize that your water budget, whether you like it or not, or whether you understand it or not, is integrated.

We realized pretty early on in our [groundwater basin] adjudication that you cannot manage what you do not understand. However, the lack of understanding doesn't stop people from fighting. What we learned was to invest in ourselves—you either pay now or you pay later. Scientists and attorneys are expensive. If you don't want to pay for scientists now, you are going to pay for attorneys later. Then, a few years later, after you are done fighting, the judge is going to tell you to go pay for the science.

With respect to integrated planning, we got to a point where we actually started to invest in ourselves, invest in science, and actually understand how our complicated water resource system, with its many ins and outs, works. The system is not just about a groundwater agency, water import agency, or wastewater agency, etc. We also learned that integrated planning was a vehicle for us to come together and really understand all the components of the system and how they work together.

We have a water master report for our basin that we have to submit to a judge every year. There are some similarities between this and what sustainable groundwater agencies are required to do.

The integrated planning process is wholly different than putting together a sterile accounting exercise, slapping a cover on it, and sending it to a judge or regulator that's going to tell you how to manage your basin. You do need an integrated approach to deal with the many facets of operating a natural resource system. Just complying with SGMA, or waiting for, or receiving a judge's direction, really won't do that for you.

We really wanted to embrace a holistic approach that involved all the stakeholders. We first laid out all of our common understandings/objectives—just simple things like:

- Subsidence is bad
- Don't kill the environment
- Don't use up all the water
- Protect water quality

IRWM helps break us out of our individual silos.

SGMA, or at least our adjudication, isn't a great vehicle to have those conversations. The integrated planning process operates as a safe place, a think-tank and as is a place to have conversations—it is very different from an accounting exercise. The conversations we have under IRWM are often candid and there's a lot of trust building. Those conversations helped us see connections that weren't obvious before. Ultimately you hope to get down to creative solutions.

A couple of examples of how the integrated water planning process worked for us:

- The Mojave River was inundated with salt cedar/tamarisk, an invasive species. Whose problem was that? Was it Fish and Wildlife's, the resource conservation district's, cities', State Water Contractors', water master's? No one was quite sure. The salt cedar problem was very unfortunate in that it was choking one of the last remaining bits of southwestern riparian habitat. The tamarisk was using thousands of acre feet of water.

  Through the integrated process we banded together, found partners, and developed a business case for dealing with the issue rather than point fingers at each other based on jurisdictions. By banding together, we dealt with this invasive species problem and essentially created thousands of acre-feet of new water.

- Another example involves flood control. By bringing flood control and groundwater recharge agencies together, and using a combined flood detention and groundwater recharge basin, taxpayer's money was saved.

I have many more examples of the benefits of the integrated water management process.

These types of ideas and benefits didn't come out of our adjudication and my concern is that it's going to be tough to bring them out of the SGMA process.

Courtney Howard

Our IRWM region is county-based. Depending on how you set up your IRWM region, it can have pros and cons in relation to how SGMA activities can be integrated with IRWM.

Things worked out pretty well for us. We are one of those counties that also has a flood control and a water conservation district with the same coterminous boundary, and with the same five board members for each agency. In our county, the flood control agency keeps track of conditions and implements regional projects. The County has the land use authority and looks at resource management through ordinances. We have a countywide water resources advisory committee that brings together all of the water purveyors and at-large environmental, agricultural, and development interests, so it was kind of a natural fit when IRWM came along. We basically kept going with what we were already doing and developed our IRWM plan in accordance with state standards.

In our county, we have a total of 23 groundwater basins, six of which are subject to SGMA. We see the opportunity with SGMA and the formation of groundwater sustainability agencies. We now have governance structures that can then help look at things at the groundwater basin/watershed scale and then come up with sustainability goals and solutions that can be rolled up to the county level in support of IRWM.

One of the big values that IRWM brings to groundwater management is a collaborative framework for managing water resources. As each of our six basins subject to SGMA evaluate not only demand management, but supply enhancement opportunities, they will be looking to the regional supplies that the county has available. We'll need that IRWM forum to bring everyone together to look at what the needs are in each of those six basins and how they hope to leverage what regional water supplies are available. We are going to have a kind of natural internal competition for whatever water is available, but it might provide an opportunity to think outside the box in terms of exchange opportunities. Such opportunities could include supply enhancements for the

coastal basins that would free up new supplies for inland basins that don't have the same access to supply enhancements that the coastal basins do.

The institutional structure that was set up under IRWM can help bring the groundwater sustainability agencies to the table and allow what they do at the sub-regional scale to be rolled up to the regional scale. This information could then be used inform the California Water Plan too someday.

As far as how SGMA affected IRWM, in our county we were trying to do things at a regional scale but we didn't have the institutional structures at the groundwater basin scale to implement solutions. Now that we have some groundwater sustainability agencies, we have governance with authority to implement solutions.

I think SGMA is going to be helpful to our IRWM program but, unfortunately, we only have the resources to do robust analyses for the six high and medium priority basins out of the 23 [basins in our region]. So, while groundwater sustainability plans and their water balances and solutions will help inform the IRWM plan for the region, we have to fill in the gap with water balances for the remainder of the county. That's a little bit of a challenge but we are trying to leverage the frameworks set up under SGMA to develop water balances and solutions for the remaining groundwater basins in San Luis Obispo County. By doing this, we will have a picture of current and future conditions, what sustainability looks like, and what solutions we need to implement.

One big challenge moving forward in my area is timing. We have a lot of concurrent analysis activities going on. The priority for resources will be the six basins subject to SGMA. We'll need to coordinate the timing of all the documents to come out, as well as the messaging about what the conditions and solutions are. With time, we may have to improve analyses and solutions for the six basins and then address the remaining basins later.

If we can have common data sets, common projections, and common methodologies, I think that would really go a long way in helping reduce inconsistent messages and data sources that can be confusing to the public, and to managers. We are trying to focus on efficiency--if we're all working in silos and are not aware of what each of us is doing, that will prevent sharing and lead to other inefficiencies.

So, in summary, to enhance the connection between IRWM and SGMA, we need to work in partnership and line up the timing, data availability, and analysis methodologies between efforts. By doing this, we will be efficient and will develop common understanding and messaging.

John Ricker

The Santa Cruz IRWM region includes most of Santa Cruz County and it follows watershed boundaries. Our region includes four large watersheds and some smaller coastal watersheds. We have two groundwater basins subject to SGMA.

For us, IRWM and SGMA complement each other. SGMA provides tools to implement IRWM and in turn, IRWM provides tools to implement SGMA.

We are a small IRWM region and do not have any single large water agency. Within our IRWM region we have county government, three cities, four urban water suppliers, a resource conservation district, and a couple of sanitation agencies. All of these entities are signatories to the memorandum of agreement for our IRWM region. We essentially have all of the public agencies that deal with water in our region on board with IRWM.

All of our water is local--it's a mix of surface water and groundwater. Our surface water comes primarily from steam diversions so we're very dependent on streamflow and very impacted by droughts. Our surface water supply is also impacted by the need to reduce diversions and leave more water for Steelhead Trout and Coho Salmon.

Our groundwater basins are overdrafted. We have depressed groundwater levels, sea water intrusion (in the coastal basins), and depleted stream flows as the result of the overdraft.

We have been well aware of the issues with our groundwater and surface water supplies since about the 90s. We started to work together in the late 90s to address them. The IRWM program really helped to push us together to develop an IRWM plan, and secure Proposition 50 funding. We have continued to work together since then.

We managed to connect all the different water agencies with emergency interties. Those agencies are now talking about using those interties for conjunctive management of groundwater and surface water. We would use our excess winter surface water, treat it, and then recharge the groundwater basins through direct recharge or in-lieu recharge. This will help restore the groundwater basins and provide storage for drought [back-up] supplies for the surface water agencies.

IRWM really has worked well for us but it has taken a little while. The water supply agencies in our region were talking a good line but did not really want to work that closely together, until recent years. Now we're really working on joint projects and moving ahead with things that will benefit multiple agencies, and potentially the entire region. The sanitation agencies were some of the last to come on board but now they

are talking about the potential for recycled water and purified recycled water use. The sanitation agencies are much more engaged in the IRWM process now.

Through the IRWM program, we are looking at managed aquifer recharge as a tool, both to deal with stormwater, and to augment our groundwater supplies. Of course, anytime we bring our groundwater levels back up we are putting more water into our streams for summer base flow which supports riparian habitat and steelhead habitat. So, we're really seeing a lot of these things as win-win situations that provide multiple benefits throughout the region and pretty much for all of our agencies.

As far as the challenges we've had, it's been pretty smooth. We've been doing watershed management at the county level since the 70s, so we do have a pretty long history of that and engaging with our stakeholders. We seem to get a new batch of private citizens to work with almost every five years and have to start all over again with the education process. We have also had a new batch of citizens become involved along with the advent of SGMA.

Our groundwater sustainability agencies are joint powers authorities with multiple agencies in each GSA. We also bring in some of the other stakeholder agencies and private well owners as representatives on our agency boards. We are trying to reach out and engage with everybody in those particular basins and that's been a pretty successful effort. Obviously, state funding and technical assistance have helped us out.

We really appreciate the approach of SGMA in terms of laying out the framework but letting us define how we do it, as opposed to the state stormwater program. The state's stormwater program is very prescriptive and directs us to spend limited local resources and local funding on things that may, or may not, have much long-term impact. On the other hand, so far, SGMA looks like it's providing a good model for us to move ahead and address our issues.

Eric Osterling

In general, the Kings Basin IRWM Region, and the Tulare Lake Hydrologic Region, have significant groundwater level decline issues.

Our IRWM group has fallen apart to a certain degree, but not entirely. We still are doing some really good things. My agency, the Kings River Conservation District, covers primarily two groundwater subbasins--the Kings Subbasin (approximately a million acres in area) and the Tulare Lake Subbasin (about 525,000 acres in area). This large area is highly dependent on groundwater.

The claim that there's a direct nexus and fit between IRWM and SGMA is probably most strongly made, I think, for areas like the south-Central Valley. We also think that there are some things that are unique to IRWM, and outside of the scope of SGMA, that are beneficial. That is why we continue to promote and apply IRWM in the south-Central Valley.

Of the two groundwater subbasins in our region, the Kings Subbasin, has a long history of integrated planning beginning in 2001. We have been actively meeting over time and have significantly expanded the Kings Subbasin stakeholder group to 54 members and interested parties spanning the spectrum of interest groups.

We have developed very strong relationships in our IRWM group over time. I was talking with a colleague of mine in the audience earlier today and we joked that we probably wouldn't be sitting next to each other now if it hadn't been for IRWM.

I think the foundation that IRWM created for SGMA, at least in the Kings Subbasin, is very important. I think it catapulted a lot of the efforts required under SGMA, particularly stakeholder outreach and identifying needs for the development of sustainable groundwater management plans.

As I mentioned previously, the Kings Subbasin is highly dependent on groundwater so a subbasin hydrologic model was developed as an initial step to support IRWM planning. This model was developed before the Central Valley DWR and USGS models were developed. We developed our hydrologic model to better understand our overdraft issues. Understanding the overdraft condition continues to be a priority for us as it is for many of the subbasins in the south San Joaquin Valley. That modeling work under IRWM is allowing us to quickly address some of the efforts required by SGMA in a very short timeframe.

We are also very lucky for all those relationships developed under IRWM without there being a whole lot of pressure at the time. Now that we're up against a statutory deadline to get groundwater sustainability plans done, we need to work quickly to develop additional relationships with stakeholders who maybe we missed in the IRWM process. We need to understand what these stakeholders' needs and concerns are. This won't be as heavy of a lift as it would have been without the efforts under IRWM.

IRWM spawned a number of other coordination efforts that I think are very valuable. One of them is called the Central Valley Groundwater Monitoring Collaborative. This collaborative consists of various entities, mainly regulatory ones, such as the irrigated lands, dairy, and oil fields regulatory programs, and others. Everyone is working together to develop smart monitoring networks and to not duplicate efforts and waste money and effort.

Under IRWM I think we've been very successful with disadvantaged communities. The Tulare Lake Hydrologic Region was the recipient of a $2 million-dollar grant through Proposition 84 to do a disadvantaged community needs assessment. The Kings Basin and other IRWM planning groups also received similar grants. The information and relationships that were developed through these IRWM grants are invaluable to the development of the groundwater sustainability plans.

I am fully supportive of the bottom-up approach discussed during the previous panel session [*Building the Next Update (2023) of the Water Plan from the Local/Regional Level Up*]. One thing I am cautious about in supporting any approach is to keep in mind that what might be good for some, may be detrimental to others. An example of this, something that was kind of a waste of time and resources for us, was SB 985. There's been a lot of discussion about storm water capture and recycled water in the coastal areas of the state. As a closed system, we've been capturing and making use of storm water and recycling water in the Central Valley for a very long time. There are cooperative arrangements between cities and agricultural interests to use recycled water for irrigation in lieu of groundwater and there are agreements between water and flood agencies, cities, and farmers to capture storm water. Now, because of mandates like SB 985, we are required to develop a stormwater resources plan to describe the things that we've already been doing and that are, in large part, already described in our IRWM plan and other plans.

Another cautionary point is on integration. There's a degree to which you can safely integrate. You don't want to completely erode individual processes. I've heard DWR staff say many times that IRWM plans are intended to be "plans of plans". I'm concerned that there potentially is an effort to move towards full integration where basically an IRWM plan is top-down to facilitate what goes on with SGMA. I think that might work for some areas, but not for others. Our area is highly dependent on groundwater and our IRWM plan describes that, and our IRWM implementation efforts illustrate that. Bear in mind as you look at IRWM regions throughout the state there are some regions that have very little, if any, areas subject to SGMA. You don't want to boilerplate something and then cause an adverse impact because of being overly prescriptive, such as with SB 985.

John Woodling

For about the past nine and a half years, I've been managing two regional joint powers agencies in the Sacramento region, one of which is the Regional Water Authority. Among other things, the Regional Water Authority houses the integrated regional water management group. The other regional joint powers agency, the Sacramento

Groundwater Authority, has become the groundwater sustainability agency for our region.

For about the same amount of time that I've been managing these two regional authorities, I previously worked for DWR, including at the beginning of the State's IRWM program. When the IRWM Program started I, as a manager, had to figure out what integrated regional water management meant, how to develop it, and how to use grant funds to make some things happen. I also managed DWR's groundwater programs at the same time.

SGMA isn't just about groundwater, it is really about integrated water management through a groundwater lens. When you start doing your SGMA water budget, and you've only been a groundwater manager, you're going to realize that there's now a bunch more things to think about, but that's a good thing. Developing a hydrologic budget provides opportunities, especially in those areas where you have a scarce resource. Any drop of water you can generate through management of the whole water resource system, such as through an offset to groundwater use, or through groundwater recharge operations, is something that someone doesn't have to give up.

To the extent IRWM groups are devolving into everybody backing into their corners and fighting over that "small pie" they have left, that's when you know the scarcity model [of everyone-for-themselves] is probably not the most productive. Ultimately, I think everyone that's doing that will realize it's a problem and will come back together at some point.

IRWM and SGMA are two different institutional frameworks around the same issue. I think the better you can coordinate the strengths and weaknesses of each framework, the better you're going to be at solving your problems.

SGMA clearly identifies some objectives related to groundwater. If you are an IRWM region that overlies a medium- or high-priority basin, and you didn't have objectives related to groundwater management before, you were probably missing the boat. Under SGMA, groundwater management objectives are clearly defined and there's also responsibility for them. In theory, groundwater overdraft, subsidence, sea water intrusion, and other groundwater mismanagement problems can't be subsidized by pushing off negative impacts on to somebody else anymore.

SGMA creates clear objectives and the authorities to deal with them. The intent of the SGMA legislation was to create tools for solving problems. SGMA also creates the opportunity to fund some aspects of groundwater management. That's important and it's something that IRWM hasn't necessarily had in a lot of places. In some areas of the state, IRWM has been somewhat dependent on state funding to keep it alive.

On the IRWM side, it brings a culture of inclusiveness, stakeholder involvement, collaboration, and some innovation that maybe groundwater management hasn't fully had in the past. To the extent we marry IRWM and SGMA, and align all the objectives around management of the whole water resource, there's a lot of opportunity to accomplish a lot of things.

There are those who have said that the key to IRWM and making it sustainable is giving it some legislative authority. I disagree with that because IRWM regions have been free to develop however they want to in their region and that's been very beneficial. I think mandating their role would ruin a lot about what is good about IRWM. I think the match between IRWM and SGMA could be one made in heaven. SGMA has its clear and strict groundwater sustainability agency authority and funding mechanisms and IRWM has its collaborative entrepreneurial groups that bring people together to solve problems.

For the American Basin, the relationship between IRWM and SGMA really isn't a big new issue we need to face. We were already managing groundwater in coordination with IRWM.

In the early 1990s the American Basin was experiencing a number of problems:

- Growing population and economy and the need to divert more surface water in the future to serve those demands.
- Declining groundwater levels, on average two feet per year with a cumulative overdraft of about 80 feet since World War II.
- Major groundwater contamination plumes. Here at McClellan, we are sitting atop a plume right now. Another major plume exists south of the American River at Aerojet.
- Major legal battles over surface water diversions. We needed more water but were sued by environmental groups every time we tried to divert more water. The County of Sacramento was suing East Bay Municipal Utilities District not to divert water from the Central Valley Project.
- Threatened Steelhead in the lower American River that had to be protected.

We needed to come together around how we were going to solve these problems. The powers at the time, largely city and county officials, created the Sacramento Water Forum. The forum brought together business representatives, local environmental representatives, water suppliers, and municipalities. Some of the municipalities are water suppliers, but they also served as representatives of the constituent public.

In the beginning, some of the people helping facilitate the Sacramento Water Forum discussions said that it would take a lot of hard work and about 18 months for the forum to work out a deal for managing regional water resources. It took seven years to reach

an agreement that all parties signed onto. That agreement is the precursor to the American Basin IRWM plan.

We began IRWM in 1998/99. When state funding for IRWM came along it was a good thing for us, we were already in motion. We began groundwater management as a part of the Water Forum Agreement in 1998. So, in complying with the new groundwater law, we are not faced with major new pressures, including having no idea how to come together to comply with SGMA.

David Orth

That was a really good discussion. I think we could sit here another hour and have a deeper dive into this conversation.

We have a few minutes for audience questions.

Member of the audience: Thank you to the panel for a very insightful and well-stated discussion. I learned a lot.

Do you panel members think the requirements for groundwater sustainability plans in your areas may change the way groundwater sustainability agencies are organized by encouraging consolidation, or even splitting in different ways?

> ***John Ricker's response*:** Our GSAs already conform to our groundwater basin boundaries so I think they're going to be pretty stable.
>
> ***Courtney Howard's response:*** We do have cases where we have multiple groundwater sustainability agencies overlying one basin. In developing agreements between those agencies to develop one plan for the basin, we recognize that there's going to be another decision point on how to implement the plan once it is developed. We could end up forming a joint powers authority for implementation efforts. It could turn out instead that there will be an agreement between agencies and the county to divide up the implementation tasks. When we develop agreements for developing one plan for a basin we need to revisit the governance structure later.
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> ***Eric Osterling's response*:** The Kings Subbasin had an IRWM group to begin with and then, as the result of SGMA, the group fragmented back to the boundaries of their coordinated SB 1938 plans (groundwater management plans). Even without an IRWM process for the Tulare Lake Subbasin to the south, the multiple groundwater sustainability agencies in that subbasin are going the direction of developing a single groundwater sustainability plan for the subbasin.

The scope of work for the development of a single groundwater management plan for the Tulare Lake Subbasin is to proceed as far as possible in reaching the goal of a single plan that all the subbasin agencies can adopt. They've provided some "off ramps" for their effort in case they encounter any insurmountable obstacles in attempting to develop a single plan.

Just the opposite is happening in the Kings Subbasin. The various groundwater sustainability agencies are going to develop individual plans in a coordinated fashion. They may get to the point where they decide to bring all the separate plans together into one plan. The agencies may also consolidate at some point, possibly just because of possible economies of scale.

Regarding groundwater sustainability agencies, there are some small agencies that I wonder how they are going to make it, not just from a concern about geographic scale, but also due to resource considerations (water and finances). My personal opinion is that there will be some consolidation in our area, how much, I'm not sure. Any consolidation will probably occur over a pretty lengthy period of time.

Colin Bailey, Environmental Justice Coalition for Water

Regarding the intersection between IRWM, SGMA, and disadvantaged communities, our perspective it is in some ways it felt like that, just as disadvantaged communities were starting to get a foothold in IRWM efforts through the involvement program, the emphasis now has shifted tremendously towards SGMA. SGMA efforts have been a lot less open than IRWM.

Some of the panel members, including Eric Osterling, spoke to some of the synergies that are there between IRWM and SGMA. In speaking with Ara Azhderian with the San Luis Delta Mendota Water Authority, they are putting out a holistic disadvantaged community outreach plan solicitation for SGMA. There's a current solicitation open to support GSP formation.

What are your plans to dovetail the gains you have made with disadvantaged communities under IRWM with SGMA (including the involvement program, needs assessments, outreach, etc.) for this upcoming grant round?

> ***John Woodling's response****:* Being in largely the urbanized portion of northern Sacramento County, we don't have standalone or isolated disadvantaged communities. We certainly have economically disadvantaged parts of water agency service areas, but they are already served by water systems so we don't have to address the needs of those areas quite as directly. I think the IRWM

disadvantaged community involvement grant funds need to address the issue of economically disadvantaged areas like [the ones] we have.

If we are going connect IRWM and SGMA we need to leverage advances made with disadvantaged communities under IRWM with SGMA.

Colin Bailey's added comment*:* I would add private well owners to that group too.

Lance Eckhart's response: Even though my region doesn't have to deal with SGMA, we are under a groundwater basin adjudication which can be considered an analog to SGMA. We've gone through a couple of IRWM planning rounds. In our 2005 plan, disadvantaged communities were not on our radar screen. In our 2014 update, disadvantaged communities were one of our highest priorities. Through the various IRWM grant rounds we've done a lot of things for disadvantaged communities in our region. Conversely, disadvantaged communities are not even part of the conversation with our adjudication. Again, our groundwater adjudication is an accounting exercise that we turn over to a judge to make sure that the basin is sustainable. Disadvantaged communities are not part of that conversation.

All this illustrates the contrast between what is to be accomplished through groundwater basin adjudication/SGMA as opposed to bigger picture, more holistic objectives under IRWM. Disadvantaged communities didn't have as much of a voice ten years ago as they now have under IRWM.

David Orth – Panel Session Summary

My quick take-aways for this session are:

- We heard consistently that the local management approach works and is preferred--several of the panelists made that comment.
- IRWM clearly set up a foundation for collaboration. Those regions that had good IRWM efforts also established good relationships and trust which translated into good data and groundwater sustainability actions.
- I am really surprised to hear that SGMA really didn't derail integrated planning processes in the panelists' regions. SGMA is viewed as giving GSAs tools that can help integrated planning, and integrated planning provides tools that can help SGMA.
- There is a need for continued technical assistance support as groundwater sustainability plans emerge to ensure consistency between IRWM and SGMA.

Biographical Summaries

Panel Moderator

David Orth, of Clovis, is principal of New Current Water and Land, LLC, which offers strategic planning, program implementation, and water resource development services. Mr. Orth is a member of the California Water Commission, appointed by Governor Brown in 2014. He served as general manager of the Kings River Conservation District from 2002 until August 2015, and as executive officer of Friant North Authority from August 2015 until December 2016. Mr. Orth has more than 35 years of financial and water resource management experience, serving previously as vice president of resource management at California Valley Land Company, the director of finance and general manager positions at Westlands Water District, and various positions with the Fresno County Auditor-Controller/Treasurer.

Panel Members

Lance Eckhart is the director of basin management and resource planning for the Mojave Water Agency (State Water Contractor) and has been with the agency since 2001. Lance has worked in the public and private sectors during his approximate 20 years of experience in water resources management. Prior to his employment at Mojave Water Agency (MWA), Lance worked for a variety of consulting firms focusing on groundwater remediation and assessment. His responsibilities include leading a team of scientists, engineers, data analysts, technicians, and planners to manage the water resources for the approximately 5,000 square mile Mojave Water Agency service area. Recent major work consists of directing the agency's urban water management plan, the integrated regional water management plan, salt and nutrient management plan, groundwater management plans, basin conceptual models, and direct input regarding water policies for the region. Lance received his Bachelor of Science degree in in geology, and a Master of Science degree in environmental science from California State University, Fullerton. He is a licensed professional geologist and certified hydrogeologist in the State of California.

Courtney Howard is a registered civil engineer serving as the Water Resources Division manager for the County of San Luis Obispo Public Works Department. She received a bachelor's degree in environmental engineering from California Polytechnic State University, San Luis Obispo, in 2000. In 2001, after operating and maintaining groundwater treatment systems in the Bay Area, she transitioned to regional water

resource management for the county, developing local and county-wide water plans and groundwater management studies, and serving as secretary for the county's Water Resources Advisory Committee. She is currently a member of the State's Sustainable Groundwater Management Act Practitioner Advisory Panel.

John Ricker is the Water Resources Division director for the Santa Cruz County Health Services Agency-Environmental Health Division, and is a director with the Santa Cruz County Resource Conservation District. He is also on the steering committee for the Santa Cruz Integrated Regional Water Management Program and is a lead staff member for Sustainable Groundwater Management Water Plan Update efforts for two basins in Santa Cruz County. John has worked for Santa Cruz County in watershed planning, water quality protection, and water resources management since 1974. He serves on various State and regional advisory groups dealing with beach water quality, groundwater management, stormwater management, onsite sewage disposal systems, water supply planning, and watershed protection. John holds a degree from the University of California, Santa Cruz, in environmental studies and biology.

Eric C. Osterling is the water resources manager of the Kings River Conservation District. He serves as program manager/administrator for several collaborative planning efforts within the district including the South Fork Kings Groundwater Sustainability Agency, North Fork Kings Groundwater Sustainability Agency, and Kings Basin Water Authority. He is a member of the Kings County Water Commission.

John Woodling is executive director of the Regional Water Authority, a coalition of more than two dozen water purveyors and associated agencies in the greater Sacramento region. He also heads the Sacramento Groundwater Authority, a joint powers agency managing the groundwater basin in Sacramento County north of the American River. With over 30 years in water resources management, John has provided innovative leadership at local, State, and federal levels. John previously served at DWR, managing groundwater programs and directing development of the State's Integrated Regional Water Management Program. John holds a bachelor's degree in geology from Whittier College and a master's degree in hydrogeology from the University of California, Davis. He is licensed as a professional geologist and a certified engineering geologist and hydrogeologist in California.